

X. NEW SPECIES AND VARIETIES OF NORTH AMERICAN
BUTTERFLIES.

BY W. J. HOLLAND.

Family PAPILIONIDÆ.

SUBFAMILY PARNASSIINÆ.

Genus PARNASSIUS.

Parnassius golovinus Holland, sp. nov.

♂. Recalling *Parnassius delius* Esper, but distinguished on the secondaries by the presence of a band of dark submarginal sagittate spots and a much heavier inward extension of the black band of the same wing which runs along the upper three-fourths of the inner margin and is produced inwardly along the under side of the cell. This black band is followed below by a heavy black wedge-shaped bar, which extends from the inner margin above the anal angle as far as the first median nervule. On the under side the markings are paler, the black band along the inner margin is obscure and at the base covered by three large crimson spots. On this side the black bar above the anal angle of the hind wing is pupilled with crimson spots.

♀. On the upper side the transverse marginal, submarginal, and extradiscal spots are much darker and more diffuse than in the male. The extradiscal band of dark spots is accentuated below the costa by two crimson spots encircled by black, which are far more conspicuous than the corresponding spots in the male, in which sex they are often wanting. The secondaries are broadly margined externally by dark fuscous, melting into and fusing with the submarginal band of black spots, which appear in the male; the black bar above the anal angle fuses with the black internal area and coalesces with the black margin of the large crimson ocellus below the cell. On the under side the markings of the upper side are repeated as in the male, but paler. The supra-anal bar is represented by three triangular crimson spots bordered outwardly by black and pupilled with white. Expanse: ♂, 60 mm.; ♀, 65 mm.

This is the Alaskan form of *delius* Esper. It is represented in my

collection by a series of specimens collected at Golovin Bay and at other points not far distant.

Family NYMPHALIDÆ.
 SUBFAMILY NYMPHALINÆ.
 Genus MELITÆA Fabricius.
Melitæa gilensis sp. nov.

The transverse bands and spots on the upper side resemble in a general way those of *M. minuta*, but are fainter, the ground-color a very pale buff. On the under side the entire surface is pale whitish with almost no contrast between the ground-color and the transverse bands which are a shade paler than the ground-color, pearly white, and laterally defined by faint darker lines. The location and outline of these bands recalls that which is found in the species of the *Didyma*-group (*arachne* Edw., *pola* Boisd., *nympha* Edw.), but there is an entire absence of the minute black dots, or punctulations, which are characteristic of all the species of that group.

The type, which has long stood in the Mead Collection in my possession was taken by the Wheeler Expedition and is ticketed as from "Ft. Gila," in southern Arizona. The type will be figured in the forthcoming Revised Edition of *The Butterfly Book*.

Melitæa arachne Edwards, ab. **gunderiæ** ab. nov.

I take pleasure in naming a remarkable aberration of *M. arachne* in honor of the good wife of my esteemed friend, Mr. Gunder, which is characterized by having a very dark brown mesial band on the secondaries, replacing the light spots of the mesial band found in normal specimens. The type is a female. In naming this aberration I depart a little from my ordinary practice, but as Mr. Gunder has named an aberrant form of *M. hofmanni* Behr figured in *The Butterfly Book*, Pl. XVII, fig. 14, in honor of my wife calling it ab. *hollandæ*, I return the compliment by calling this butterfly ab. *gunderiæ*.

Family HESPERIIDÆ.
 SUBFAMILY HESPERIINÆ.
 Genus THANAOS Boisduval.
Thanaos avinoffi sp. nov.

♂. The wings on the upper side almost uniformly dark brownish black; the fringes a trifle lighter. The fringes are followed inwardly by

a thin sharply defined black marginal line. On the fore wing the outer marginal line is succeeded inwardly by a series of intraneural markings, slightly paler than the ground-color of the wings, defined inwardly by minute deep black sagittate markings, which in turn are followed inwardly by a somewhat paler and very narrow submarginal band, which runs from the costa to the inner margin. There are three very minute translucent preapical spots on the costa, and in some specimens a minute spot above the second median nervule at its origin; the remainder of the wing basad deep black. The hind wings above are deep brownish black, without any distinct markings, except the fine black marginal line. On the under side both wings are a trifle paler than on the upper side, palest at the lower angle of the primaries; the translucent spots appearing on the upper side more distinct on this side. Close scrutiny reveals a very faint and obscure post-median band of lighter spots on the lower side of the hind wings, but these are not always present.

♀. Somewhat lighter in color on both sides of the wings than in the case of the males, and with the lighter markings more distinct. Some of the females have a minute translucent spot at the end of the cell of the fore wing, and most specimens have two such spots, one above, the other below the second median nervule at the point where it is emitted. Expanse: ♂, 1.10-1.15 in.; ♀, 1.15 in.

The above description is based upon a series of over forty specimens collected at various points in the Yukon Valley, the valley of the Kuskokwim, and various other points in Alaska. It is the species of the genus which is most prevalent in Alaska, and which I designated as *T. persius* in the *Entomological News*, Vol. XI, 1900, p. 420. At that time I had only a single specimen before me taken at Fort Selkirk by the late Dr. S. Hall Young. I name the species in honor of Dr. A. Avinoff, whose grandfather, Admiral Avinoff, explored the coast of Alaska for the Russian Government, and whose name is borne by one of its capes.

The type and allotype will be figured in the forthcoming Revised Edition of *The Butterfly Book*, Pl. LI, figs. 28, 29.

SUBFAMILY PAMPHILINÆ

Genus ERYNNIS Schrank (*Pamphila* auct. nonnull.)

It having been definitely ascertained (See Ent. News. Vol. XL, No. 10, 1929, p. 326) that *P. ruricola* Boisd., which is identical with *P. californica* Mabille, is a synonym of *P. vestris* Boisd., it follows that the insect, which has been generally accepted by American authors as *P. ruricola*, is without a name.

In the W. H. Edwards Collection there is a solitary male labelled

"*P. ruricola* ♂, Cala," which agrees with the figures of *ruricola* given by Comstock in the *Butterflies of California* and by Wright in his *Butterflies of the West Coast*. In the collection of Dr. A. W. Lindsey, now owned by the Carnegie Museum, there is a series of specimens, male and female, which are unmistakably the same as the insect in the Edwards Collection and that figured by both Wright and Comstock. I have selected from Lindsey's Collection three males from Ukiah, California, and three males and two females which are labelled from "Nellie, California," and the single specimen in the Edwards Collection as typical of the species, which has hitherto gone under the name *ruricola* Boisd., and give them the specific name *lindseyi* in honor of Professor Lindsey, who in recent years has contributed much to an exact knowledge of the genera and species of the American *Hesperioidea*.

***Erynnis lindseyi* sp. nov.**

♂. *Upper side*. Costa and disk of fore wing bright fulvous; outer margin widely and inner margin very narrowly fuscous; at apex two minute coalescing light spots near the costa, followed a little below and nearer the outer margin by a similar light fulvous spot; sexual brand deep black, linear, acute outwardly, and widening a little inwardly toward the base, which it does not reach by the length of a millimeter. Hind wing broadly of the same color as the fore wing, margined more or less narrowly outwardly and more broadly on the costa with black; the inner margin fuscous; fringes whitish. *Under side*. Palpi and end of abdomen white. Fore wing pale fulvous, passing into pale yellowish or whitish toward the lower margin and the outer angle; the apical and submarginal spots of the upper side reappear on this side and are slightly more distinct; the location of the sexual brand on the upper side is indicated on this side by a narrow black line, and there are some black scales near the inner margin at the base of the wing. The hind wing on its outer half is pale grayish fulvous, on the inner half, and especially at the anal angle it is brighter pale fulvous; the light spots on this side of this wing are obscure fulvous yellow, not white or silvery, as in many nearly allied species. These spots are as follows: three small spots arranged as a crescent a little beyond the base of the wing; two small subcircular spots below the costa, the outermost not far from the upper angle, the inner one about the middle of the wing; three minute spots arranged in a transverse discal series beyond the end of the cell.

♀. The female is larger than the male. On the upper side the wings are less fulvous than in the males, and incline to fuscous. Beyond a dark fuscous band, which occupies the same relative position as the sexual brand in the male, but which widens outwardly, are two relatively large light semitranslucent spots. The pale spots near the outer margin of the under side show themselves faintly on the upper

side. On the under the markings of the wings are much the same as those in the male sex. Expanse: ♂, 27-30 mm.; ♀, 32-34 mm.

Holotype, ♂, in Coll. W. H. Edwards, collected by O. Baron; allotype, ♀, in Collection of A. W. Lindsey from Nellie, California; paratypes 3 ♂♂ from Ukiah, Calif., three ♂♂ and 1 ♀ from Nellie, California.

Genus *POANES* Scudder.

Poanes hobomok (Harris) var. ♀ *alfaratta*, nov.

P. hobomok is polymorphic in the female sex. A female in my possession differs so markedly from normal females, and the varieties named *pocohontas* and *quadaquina* by Scudder that I am constrained to apply to it a name to distinguish it.

♀. On the upper side both wings are fuscous, dark at their bases and lighter outwardly. On the fore wings the light spots, which appear in the variety *pocohontas* are greatly enlarged, extending basad as light yellow longitudinal streaks, which tend to fuse with each other about their middle, thus forming an irregular yellow band covering the middle third of the wing. The hind wing is marked by a broad yellow spot in form not unlike that found in the male sex and normal females, but smaller and less orange in tint, inclining to whitish. On the under side the markings of the upper side reappear, but are much paler. Type ♀ in Coll. Holland, *Habitat* Kansas. In size it does not differ from normal females of the species.

This form will be figured in the Revised Edition of *The Butterfly Book*, Pl. LIII, fig. 45.

SUBFAMILY MEGATHYMINÆ.

Megathymus albocincta sp. nov.

♂. Upper side of fore wing fuscous; of hind wing deep black; two light sagittate spots pointing inwardly on the costa of the front wing, the one above the end of the cell smaller, the other, which is larger, midway between the supracellular spot and the apex; the latter spot is the uppermost of an irregular submarginal band of five light spots, the second of which counting from above is semioval the lower three being inwardly elongated; the upper spot of these three, the longest, pointing inwardly toward the cell. The hind wings are broadly banded with whitish on the outer margin. On the underside the wings are much as on the upper side, but paler. The spots of the upper side reappear on this side. The light border of the hind wings is continued around the entire wing being as wide upon the costa as on the outer margin. There are a few indistinct traces of dark dots one near the end of the cell, two beyond it.

♀. Marked exactly like the male above with the light spots a

trifle larger. On the under side agreeing with the male; a minute whitish spot near the end of the cell of the hind wing.

Type and allotype in Coll. Holland (*Ex antiqua coll. W. H. E.*). This very distinct form, or species, has long been in my possession labelled by W. H. Edwards (*cofaqui?*). It has nothing whatever to do with *cofaqui*, and comes nearer to *M. yuccæ* Bdl. & Lec., from which it is, however, totally distinct. It will be figured in the new edition of *The Butterfly Book*.